

AMENDMENTS TO THE CLAIMS

The following is a complete, marked-up listing of revised claims with a status identifier in parenthesis, underlined text indicating insertions, and strike through and/or double-bracketed text indicating deletions.

LISTING OF CLAIMS

1-12. (Canceled)

13. (Currently Amended) ~~Generation and application A method of generating and applying~~ on a support of a digital spatial marking of ~~X.times.y~~ X x Y points according to a resolution of d_{1x} by d_{1y} points per surface unit and intended to be read by a reading device with a resolution of d_{2x} by d_{2y} points per surface unit, taking into account that the ratio d_{1x}/d_{2x} and/or d_{1y}/d_{2y} is larger than 1, this process the method comprising the following steps:

- defining a pseudo-random digital mark in a resolution d_{2x} by d_{2y} ,
- sub-sampling of over-sampling the digital spatial marking in X according to a factor $nx = d_{1x}/d_{2x}$ and in Y according to a factor $ny = d_{1y}/d_{2y}$ in order to obtain a digital mark according to a resolution d_{1x} by d_{1y} ,
- erosion of eroding the points intended to be applied so as to leave one point every nx points in X and one point every ny points in Y, guarantee that the minimum distance between them is respectively nx and ny in horizontal and vertical directions, and
- application of applying the spatial marking on the support.

14. (Currently Amended) ~~Generation and application method of a~~ The method of generating and

applying the spatial marking according to claim 13, wherein the resolution of the reading device is identical in X and in Y that is to say (d_{2x}=d_{2y}).

15. (Currently Amended) ~~Generation and application method of a~~ The method of generating and applying the spatial marking according to claim 13, wherein the resolution of the initial spatial marking is identical in X and in Y that is to say (d_{1x}=d_{1y}).

16. (Currently Amended) ~~Generation and application method of a~~ The method of generating and applying the spatial marking according to claim 13, wherein the ratio of resolution in X (nx) and the ratio of resolution in Y (ny) is comprised between 2 and 5, 2 and 5 inclusive.

17. (Currently Amended) ~~Generation and application method of a~~ The method of generating and applying the spatial marking according to claim 13, wherein the support is constituted by a printing process.

18. (Currently Amended) ~~Generation and application method of a~~ The method of generating and applying the spatial marking according to claim 13, wherein the support is constituted by an engraving process.

19. (Currently Amended) ~~Method A~~ Method ~~of recognition of a~~ recognizing the spatial marking applied according to the generation method of claim 13, wherein it includes the following steps comprising:

- ~~digital acquisition of an~~ acquiring a digital image of the support,

- filtering ~~on the obtained~~ image ~~obtained~~ to eliminate the parts not ~~comprising~~ including the spatial marking,
- ~~use of~~ using autocorrelation properties to compensate every affine transformation introduced by the acquisition,
- ~~compensation~~ compensating in translation of the spatial marking using an intercorrelation between the obtained spatial marking and the group of possible positions of the spatial marking defined by a key, and
- decoding [[of]] the digital information by statistical correlation for each bit of information.

20. (Currently Amended) ~~Detection A~~ method of detecting a spatial marking according to claim 19, wherein the filtering stage is based on a compensation of a uniform initial ~~colour~~ color.

21. (Currently Amended) ~~Detection A~~ method of detecting a spatial marking according to claim 19, wherein the filtering stage is based on a prediction of the image of the initial support by a soundproofing filter.

22. (Currently Amended) ~~Detection A~~ method of detecting a spatial marking according to claim 19, wherein the digital acquisition of the image is carried out by a scanner.

23. (Currently Amended) ~~Detection A~~ method of detecting a spatial marking according to claim 19, wherein the digital acquisition of the image is carried out using a portable detector.

24. (Currently Amended) ~~Detection A~~ method of detecting a spatial marking according to claim 19, wherein the acquisition and processing of the spatial marking are carried out in two geographically remote locations.

<End of Claims Listing>